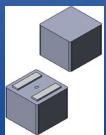


# Flat Wire / Hot Pressed Molded Power Inductor



## AMELH6060S

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6.8 x 6.6 x 5.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

### Features

- Excellent current capacity – up to 55A
- Exceptionally low DCR – down to only 0.8mΩ
- Soft saturation
- Compact size for high-density designs
- Shielded constructions for low EMI

### Applications

- Body electronics
- Lighting
- Motor control
- Solar inverters and solar power
- DC/DC converters in distributed power systems
- Battery powered device

### Electrical Specifications

Part Number	Inductance		Tolerance	DC Resistance		Saturation Current		Temperature Rise Current		Self-Resonant Frequency
	0.1MHz/ 1.0V	Units		Typ	Max	Typ	Max	Typ	Max	Min
Symbol	L	M	mΩ		A		A		MHz	SRF
AMELH6060S-R18MT	0.18	20	0.8	0.9	55.0	50.0	43.0	38.0	154	
AMELH6060S-R20MT	0.20	20	0.9	1.1	50.0	45.0	40.0	36.0	135	
AMELH6060S-R22MT	0.22	20	1.1	1.3	47.0	43.0	37.0	34.0	120	
AMELH6060S-R47MT	0.47	20	1.5	1.8	35.0	32.0	33.0	30.0	72	
AMELH6060S-R68MT	0.68	20	1.9	2.3	30.0	27.0	28.0	25.0	55	
AMELH6060S-1R0MT	1.0	20	2.5	2.9	26.0	23.0	24.0	22.0	45	
AMELH6060S-1R2MT	1.2	20	2.9	3.4	24.0	22.0	23.0	21.0	36	
AMELH6060S-1R5MT	1.5	20	3.3	3.8	22.0	20.0	21.0	19.0	35	
AMELH6060S-2R2MT	2.2	20	4.3	4.8	18.0	16.0	18.0	16.0	28	
AMELH6060S-3R3MT	3.3	20	6.3	7.2	16.0	14.0	16.0	14.0	22	
AMELH6060S-4R7MT	4.7	20	9.1	10.1	12.5	11.5	13.5	12.5	17	
AMELH6060S-5R6MT	5.6	20	10.6	11.7	11.6	10.6	12.6	11.6	16	
AMELH6060S-6R8MT	6.8	20	12.7	14.0	10.5	9.5	11.5	10.5	14	
AMELH6060S-8R2MT	8.2	20	15.2	16.8	9.0	8.2	10.5	9.5	12	
AMELH6060S-100MT	10.0	20	17.5	19.6	8.2	7.5	9.5	8.5	10	
AMELH6060S-120MT	12.0	20	22.0	24.2	7.5	7.0	8.5	7.8	9	
AMELH6060S-150MT	15.0	20	27.5	30.8	7.0	6.5	7.5	7.0	8	
AMELH6060S-180MT	18.0	20	34.5	38.0	6.3	5.8	6.5	6.0	8	
AMELH6060S-220MT	22.0	20	42.0	46.2	5.5	5.0	6.0	5.5	8	

### Test Conditions:

**Isat:** DC current at which the inductance drops 30% from its nominal value.

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40 °C) from 25°C ambient.

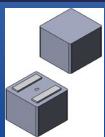
**Operating Voltage:** 40V

**Operating Temperature:** -40°C ~ +125°C. (including self-temperature rise)

**Storage Condition:** -40°C ~ +125°C (on board), -10°C ~ +40°C (with packaging) and R.H. 85% max.

AMELH6060S Series is **RoHS Compliant and Pb free**.

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**AMELH6060S**

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6.8 x 6.6 x 5.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Part Identification

AMELH6060S -



### Inductance Code

See Electrical Specification  
table. E.g 1R0 for 1uH

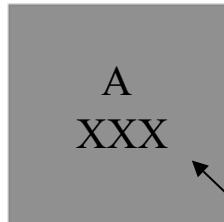
### Tolerance

M =  $\pm 20\%$

### Packaging

T: Tape and Reel (See Packaging)  
Blank: Bulk

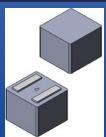
## Marking



Inductance Code  
e.g. 2R2

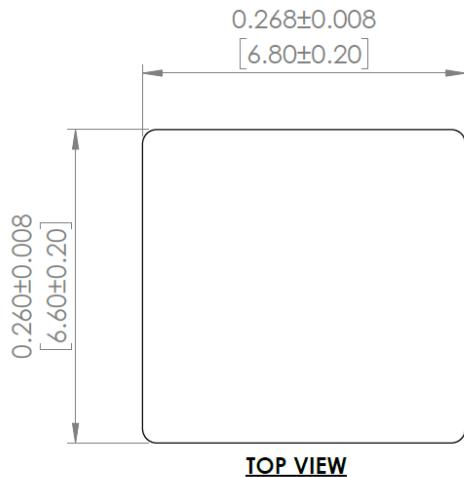
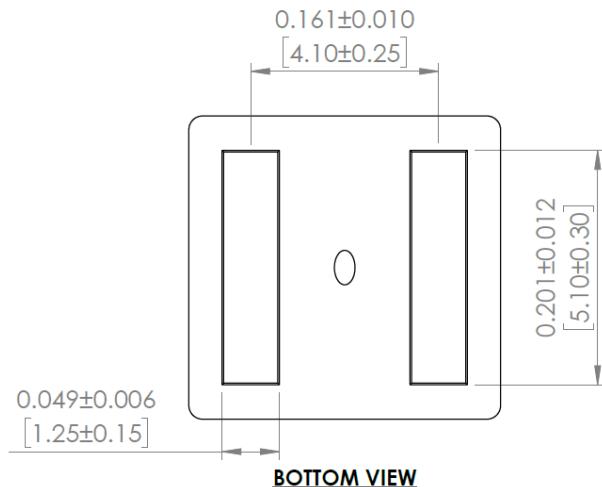
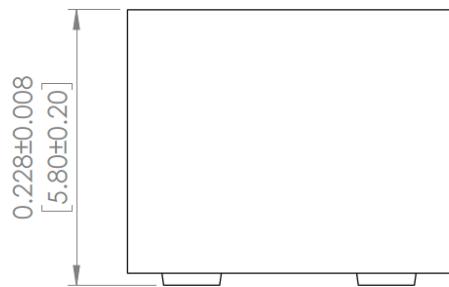
**Marking Method = Ink Marking**

# Flat Wire / Hot Pressed Molded Power Inductor

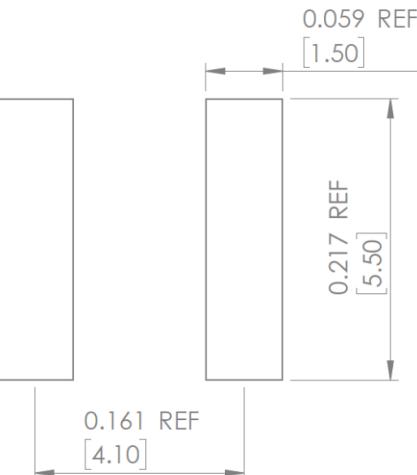
**AMELH6060S**[Request Samples](#)[Check Inventory](#)

**6.8 x 6.6 x 5.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Mechanical Specifications

**TOP VIEW****BOTTOM VIEW****FRONT VIEW**

### RECOMMENDED LAND PATTERN



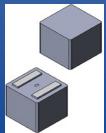
### NOTES:

The above PCB layout reference only.

Recommending solder paste thickness at .005[0.15] and above.  
Inductance code markings, black.

### DIMENSIONS: INCHES[mm]

# Flat Wire / Hot Pressed Molded Power Inductor



AMELH6060S

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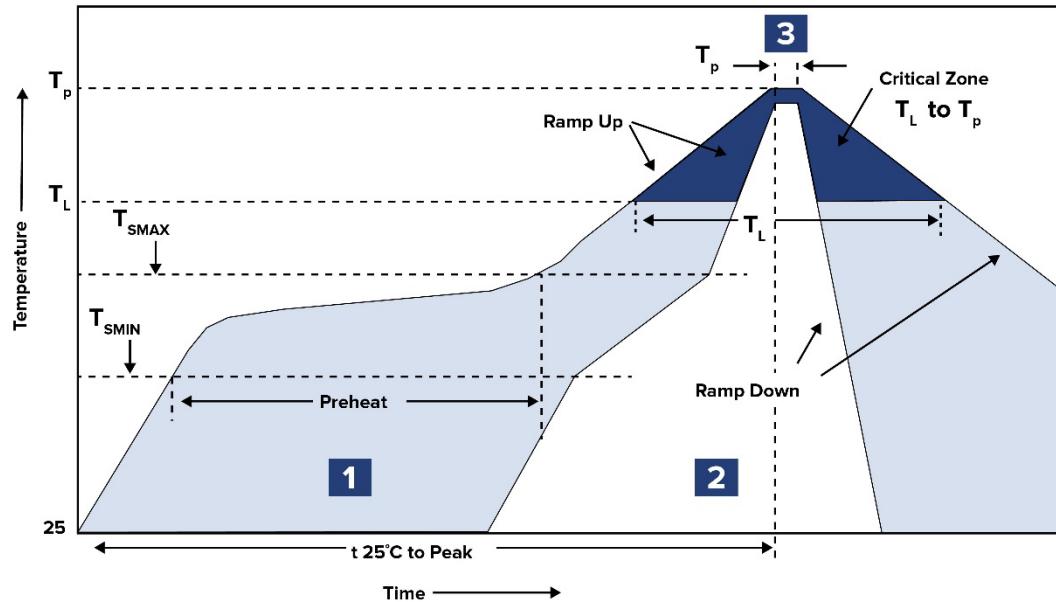


6.8 x 6.6 x 5.8 mm

RoHS/RoHS II Compliant

MSL Level = 1

## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_l$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_p$ 250°C ± 5°C	10 sec. MAX

Ref. Solder paste: Sn/3.0Ag/0.5Cu (Pb-free assembly)

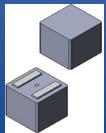
Ramp up rate: 3°C/s Max.

Ramp down rate: 6°C/s Max.

Time from 25C to  $T_p$ : 8mins Max

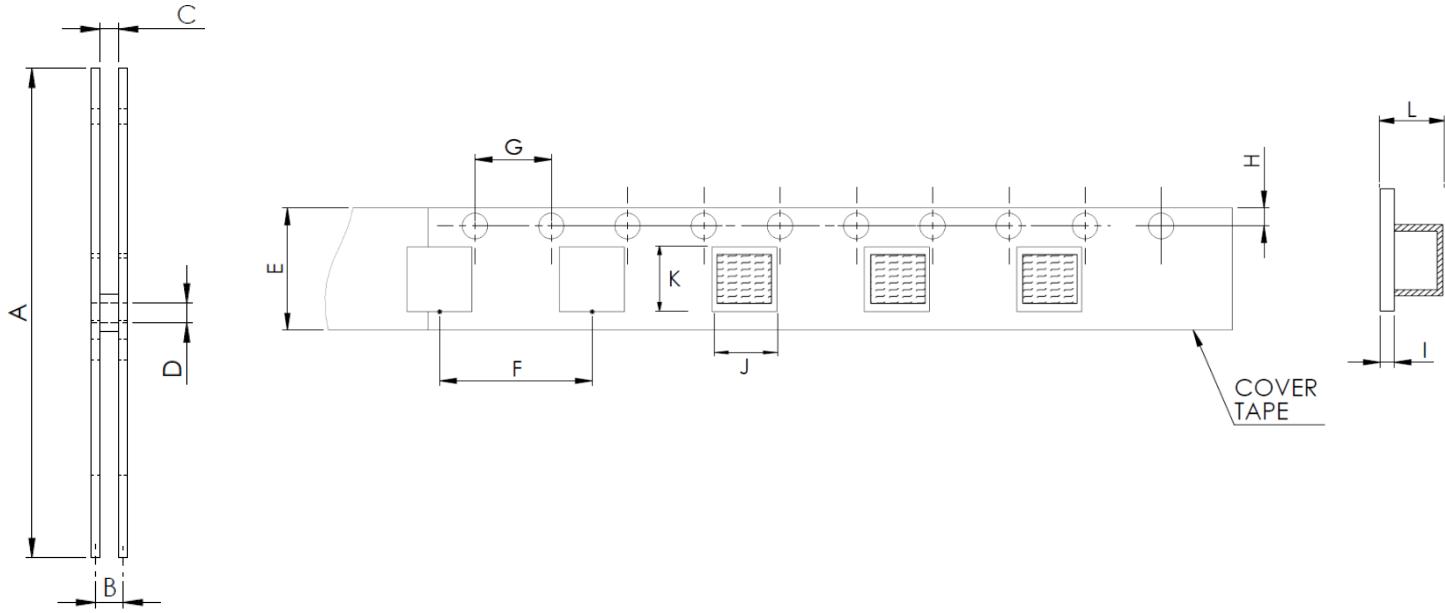
Refer to standard IPC/JEDEC J-STD-020E for more information

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**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**T: Tape & Reel, 750 pcs/reel**

A	B	D	E	F	G	H	I	J	K	L
330.0	16.4±2	13.0±0.5	16.0±0.3	12.0±0.1	4.0±0.1	1.75±0.1	0.35±0.1	7.00 Ref.	6.80 Ref.	6.30 Ref.

## Dimensions: mm

**ATTENTION:** Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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